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April 5, 2019

VIA ELECTRONIC FILING

Ms. Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: *Written Ex Parte Communication*

GN Docket No. 14-177, *Use of Spectrum Bands Above 24 GHz for Mobile Radio Services*

Dear Ms. Dortch:

T-Mobile USA, Inc. (“T-Mobile”)^{1/} applauds the Commission’s efforts to make additional millimeter wave spectrum available for Fifth Generation (“5G”) wireless technologies in the future. However, the Commission’s proposed process for sharing the 37.6-38.6 GHz band (“Upper 37 GHz band”) with the Department of Defense (“DoD”) in the *Draft Fifth Report and Order* in the above-referenced proceeding^{2/} would create uncertainty regarding the rights associated with wireless licenses in the band and thereby potentially limit the future utility and deployment of that spectrum in 5G networks. The proposed sharing process also constitutes a rule, but its adoption does not conform to the requirements of the Administrative Procedure Act (“APA”). T-Mobile therefore urges the Commission to forego adopting the sharing process included in the *Draft Fifth Report and Order* and instead let secondary market transactions dictate federal and non-federal use of the Upper 37 GHz band.

The Proposed Process Would Undermine an Auction of the Upper 37 GHz Band and Potentially the 37/39 GHz Spectrum

Under the proposed sharing process, DoD could request use of the band: (1) at specific additional military sites; and (2) only when the proposed operations could not be accommodated in the Lower 37 GHz band (37.0-37.6 GHz).^{3/} That proposed process should be rejected. *First,*

^{1/} T-Mobile USA, Inc. is a wholly owned subsidiary of T-Mobile US, Inc., a publicly-traded company.

^{2/} See *Upper Spectrum Bands Above 24 GHz For Mobile Radio Services*, Draft Fifth Report and Order, GN Docket No. 14-177, FCC-CIRC1904-02 (draft rel. Mar. 22, 2019) (“*Draft Fifth Report and Order*”).

^{3/} See *id.* ¶ 15.

it would adversely impact bidding for spectrum in the Upper 37 GHz band in the upcoming auction of the Upper 37 GHz, 39 GHz, and 47 GHz bands (“Auction 103”). As T-Mobile and other commenters explained,^{4/} and as the Commission has itself recognized,^{5/} wireless carriers require a stable, predictable spectrum environment in order to engage in effective network planning. However, the proposed process provides no assurances – it includes no limitations on the potential encumbrances in the Upper 37 GHz band, either with respect to frequencies *or* geographic area. A winning bidder could therefore, for instance, spend billions of dollars for Upper 37 GHz spectrum in New York only to have DoD later declare that it needs spectrum in that area. And DoD could claim however much spectrum it needed, regardless of the investment made by, or expectation of, the winning bidder. With no guardrails in place, potential licensees may be reluctant to bid on Upper 37 GHz band spectrum in Auction 103.^{6/}

Second, the potential devaluation of the Upper 37 GHz band that the proposed process may cause could have a cascading effect on the 39 GHz band. The Upper 37 GHz and 39 GHz bands together provide a unique opportunity in the millimeter wave spectrum. Indeed, as the Commission notes in its draft Auction 103 Procedures Public Notice, the Upper 37 GHz and 39 GHz bands in combination “offer the largest amount of contiguous spectrum in the millimeter wave bands for flexible-use wireless services.”^{7/} Limiting the Upper 37 GHz band with the threat of potential use by DoD reduces the value that the two bands together would otherwise have. Moreover, the draft Auction 103 Procedures Public Notice states that blocks in the Upper 37 GHz and 39 GHz bands will be treated as interchangeable during the assignment phase of Auction 103 and, consequently, that an incumbent in the 39 GHz band that chooses to receive modified licenses may be assigned frequencies in the Upper 37 GHz band.^{8/} If the Commission adopts that approach and its proposed sharing proposal, not only could a potential licensee be deterred from bidding on spectrum in the Upper 37 GHz and 39 GHz bands out of concern for receiving potentially encumbered spectrum in the Upper 37 GHz band, but 39 GHz incumbents could also be deterred from relinquishing their spectrum in the first place for that same reason.

^{4/} See, e.g., Comments of T-Mobile USA, Inc., GN Docket No. 14-177 and WT Docket No. 10-112, at 15 (filed Sep. 10, 2018) (“T-Mobile Comments”); Reply Comments of T-Mobile USA, Inc., GN Docket No. 14-177 and WT Docket No. 10-112, at 3-4 (filed Sep. 28, 2018) (“T-Mobile Reply Comments”); Comments of CTIA, GN Docket No. 14-177 and WT Docket No. 10-112, at 16 (filed Sept. 10, 2018) (“CTIA Comments”) (asserting that wireless licensees need rights that are clear-cut and certain); Reply Comments of AT&T Services, Inc., GN Docket No. 14-177 and WT Docket No. 10-112, at 4 (filed Sept. 28, 2018) (“AT&T Reply Comments”) (noting the need for rules that provide certainty).

^{5/} *Draft Fifth Report and Order* ¶¶ 1, 13.

^{6/} In contrast, Section 25.136, which governs use of satellite earth stations in the millimeter wave bands, allows bidders to assess potential use of the band pre-auction. The “process” that the Commission contemplates for the Upper 37 GHz band does not provide bidders that same certainty.

^{7/} *Incentive Auction of Upper Microwave Flexible Use Service Licenses in the Upper 37 GHz, 39 GHz, and 47 GHz Bands for Next-Generation Wireless Services; Comment Sought on Competitive Bidding Procedures for Auction 103*, Draft Public Notice, AU Docket No. 19-59, FCC-CIRC1904-01, ¶ 3 (draft rel. Mar. 22, 2019) (“*Draft Auction 103 Procedures Public Notice*”).

^{8/} See *id.* ¶ 94 n.79.

Finally, adopting the proposed process for the Upper 37 GHz band would establish an untenable precedent for future shared use of spectrum. Spectrum sharing between federal and non-federal entities has historically occurred under specific parameters that provide a predictable and stable spectrum environment. As T-Mobile has explained to the Commission and NTIA, examples of those sharing regimes include the AWS-1 and AWS-3 bands.^{9/} In those bands, the Commission used protection zones to protect federal incumbent operations from wireless licensees. That method has proved effective because it has allowed federal operations, which are generally localized, to continue in the AWS-1 and AWS-3 bands under established parameters, while providing commercial interests with the certainty they need to invest and operate in the spectrum. And, given the success of the initial parameters, the Commission and NTIA have further sought to reduce those protection zones.^{10/} The Commission's proposed process, on the other hand, provides no guidance to potential licensees as to when, where, or how much federal use of the Upper 37 GHz band may be needed, creating a slippery slope in policy decisions that could cripple future investment.

Adopting the Proposed Process is Inconsistent with the APA

Adoption of the proposed process would also not conform to APA requirements. Because the proposed process would establish new obligations and requirements for Upper 37 GHz licensees, it is a substantive rule subject to the APA.^{11/} The fact that there is a rule that governs other federal rights in the 37 GHz band – Section 30.205 – is further evidence that the rights that the Commission intends to affect are rule-based. Similar rights of potential earth station licensees in the millimeter wave band are also established by rule.^{12/} Accordingly, the Commission's adoption of the proposed “process” must comply with Section 553 of the APA.

Specifically, because the proposed process is a rule, it must be supported in the record under Section 553.^{13/} However, the proposed process was not included in the *Third FNPRM* nor

^{9/} See, e.g., T-Mobile Comments at 15-16; T-Mobile Reply Comments at 3-4; Comments of T-Mobile USA, Inc., Docket No. 181130999-8999-01, RIN 0660-XC044, at 15 (filed Jan. 22, 2019).

^{10/} See *The Federal Communications Commission and the National Telecommunications and Information Administration: Coordination Procedures in the 1695-1710 MHz and 1755-1780 MHz Bands*, Public Notice, 29 FCC Rcd 8527 (2014).

^{11/} See 5 U.S.C. § 553 (requiring that agency rules undergo notice-and-comment rulemaking procedures); see also *Sprint Corp. v. FCC*, 315 F.3d 369 (D.C. Cir. 2002) (explaining that substantive rules, unlike clarifications of an existing rule, are subject to the procedures of the APA); 5 U.S.C. § 553(b)(3)(A) (stating that interpretive rules, general statements of policy, or rules of agency organization, procedure or practice are excepted from notice-and-comment requirements).

^{12/} See 47 C.F.R. § 25.136.

^{13/} See 5 U.S.C. § 553(b). The APA requires that a notice contain “either the terms or substance of the proposed rule or a description of the subjects and issues involved.” *Id.* T-Mobile recognizes that Section 553 of the APA does not apply when a rule involves a “military or foreign affairs function of the United States.” *Id.* § 553(a). However, that exemption does not apply in this case. As noted above, and as the *Draft Fifth Report and Order* acknowledges, there is no current military need for Upper 37 GHz band spectrum, nor a need to protect current military operations from commercial use of that spectrum. The process specified in the *Draft Fifth Report and Order* is intended to cover unspecified potential future

suggested by commenting parties. In the *Third FNPRM*, the Commission sought comment on how to best accommodate *coordination zones* for future federal operations, asking, for example, whether it should supplement Section 30.205 to add more specific sites or establish a process that would permit a *limited* number of additional sites on an as-needed basis.^{14/} The Commission did not ask commenters whether it could permit an unknown number of additional sites in the band. And the *Draft Fifth Report and Order* does little to establish a record basis for the proposed sharing process. Merely stating that “the Department of Defense has informed [the Commission]” that it anticipates deploying additional sites beyond the 14 sites is not sufficient to support the proposed outcome.^{15/}

Contrary to the Commission’s assertion,^{16/} no party supported the vague process specified in the *Draft Fifth Report and Order*. T-Mobile, Ericsson, and Starry each proposed a process, but none supported something as open-ended as the Commission now proposes adopt.^{17/} Instead, T-Mobile and others urged the Commission to refrain from expanding the number of coordination zones or adopting broad coordination requirements, absent clearly defined federal needs.^{18/}

Even if the proposed process were reformed as a rule, it would violate the APA. The APA requires rules to be the result of reasoned decision-making and a logical analysis of the situation as it exists to withstand judicial scrutiny for being arbitrary and capricious.^{19/} In order to determine whether an agency acted arbitrarily and capriciously, courts will look to whether there

needs. In contrast, the Commission has taken advantage of the military function exemption when it allocated spectrum for Digital Electronic Message Service in the 24 GHz band on a nationwide basis, explaining that the matter “directly and unquestionably involved a military function – a direct threat to sensitive military satellite systems by licensed facilities.” *Amendment of the Commission’s Rules to Relocate the Digital Electronic Message Service from the 18 GHz Band to the 24 GHz Band to Allocate the 24 GHz Band for Fixed Service*, Memorandum Opinion and Order, 13 FCC Rcd 15147, ¶ 36 (2018). In any case, had the military exemption applied in this case, the Commission would not have asked the questions noted above that it did or engage in a rulemaking process to protect currently operational sites in the 37 GHz band. And the APA does not excuse the Commission from promulgating rules under the military exemption that are vague or lack a sound basis.

^{14/} See *Use of Spectrum Bands Above 24 GHz For Mobile Radio Services, et al.*, Third Report and Order, Memorandum Opinion and Order, and Third Further Notice of Proposed Rulemaking, 33 FCC Rcd 5576, ¶ 74 (2018).

^{15/} *Draft Fifth Report and Order* ¶ 13.

^{16/} See *id.* ¶ 16.

^{17/} See Comments of Ericsson, GN Docket No. 14-177 and WT Docket No. 10-112, at 13 (filed Sept. 10, 2018); Comments of Starry, Inc., GN Docket No. 14-177 and WT Docket No. 10-112, at 20 (filed Sept. 10, 2018).

^{18/} See, e.g., T-Mobile Comments at 15-16; AT&T Reply Comments at 4 (“AT&T opposes expanding the number of Federal sites in the 37.6-40.0 GHz band granted protection pursuant to Section 30.205 of the rules, both because no party has identified any need for additional protected sites and because granting such rights negatively affects the utility of the spectrum for 5G services.”).

^{19/} See 5 U.S.C. § 706(2)(A) (stating that the reviewing court shall set aside agency actions that are “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law”).

is a “rational connection between the facts found and the choice made.”^{20/} If the result reached is illogical on its own terms, the agency’s decision will be considered arbitrary and capricious.^{21/}

The logic for the proposed sharing process is not credible. The Commission explains that its proposed sharing process is necessary because the DoD will likely need additional sites, but those locations cannot be identified at this time.^{22/} The Commission, in turn, finds its proposal to be a “viable process” to fulfill that need, without harming non-federal operations, because any requests by DoD for Upper 37 GHz spectrum would likely be in rural areas where Lower 37 GHz spectrum would not be available.^{23/} However, rural areas are precisely where there should be sufficient 37 GHz spectrum, as opposed to cities and suburbs, which will require more spectrum to accommodate 5G network traffic.

Moreover, as evidenced by the vagueness of the proposed process, there is no rational connection between the Commission’s reasoning and the result reached. As is, the proposed process would not include any guidelines for the location or number of additional military sites. Additionally, the proposed process would not include guidelines for determining how or why a need could not be satisfied in the Lower 37 GHz band. The Commission effectively admits in footnote 41 of the *Draft Fifth Report and Order* that there are no standards for the process it proposes by noting that it has not even concluded discussions with DoD about potential future use of the Upper 37 GHz band.^{24/} It would be illogical for the Commission to address the DoD’s *potential* need for additional sites, particularly in rural areas, with an open-ended method for the DoD to claim an unknown amount of spectrum anywhere at any time.

Instead of a Vague and Flawed Regulatory Approach, the Secondary Market Can Achieve the Same Result

Rather than implement the Commission’s process, the non-federal licensees of the Upper 37 GHz band should be able to negotiate directly with DoD for increased or changes to spectrum use. As recommended by T-Mobile and other wireless interests,^{25/} the Commission should allow the secondary market to dictate what type of sharing might be made possible instead of permitting DoD to unilaterally determine the location of the additional sites. Allowing additional

^{20/} *United States Telecom Ass’n v. FCC*, 825 F.3d 674, 706 (D.C. Cir. 2016) (internal citations omitted).

^{21/} *See AFGE, Local 2924 v. FLRA*, 470 F.3d 375, 380 (D.C. Cir. 2006) (“Certainly, if the result reached is ‘illogical on its own terms,’ the Authority’s order is arbitrary and capricious.”) (internal citations omitted); *Gamefly, Inc. v. Postal Regulatory Comm’n*, 704 F.3d 145, 149 (D.C. Cir. 2013) (concluding that the Commission’s order was arbitrary and capricious because it reached an illogical result).

^{22/} *See Draft Fifth Report and Order* ¶ 14.

^{23/} *See id.* ¶ 15.

^{24/} *See id.* ¶ 15, n.41.

^{25/} *See, e.g.*, T-Mobile Comments at 15-16; CTIA Comments at 16.

federal sites in the Upper 37 GHz band pre-auction as proposed the by the Commission could, as some parties suggest, “negatively impact[] or encumber[] spectrum rights acquired at auction.”^{26/}

Regardless of a secondary market or the Commission’s approach, T-Mobile agrees that any future sharing by the DoD should be on a non-interference basis. Under the Commission’s proposed approach, however, the DoD sites would neither be protected from harmful interference from the wireless licensees, nor would they be able to cause harmful interference to the wireless licensees. Accordingly, potential future federal operations in the Upper 37 GHz band should be limited and coordinated between the non-federal licensee and the relevant federal agency.

As required by Section 1.1206 of the rules, a copy of this letter has been submitted in the record of this proceeding.

Respectfully submitted,

/s/ Steve B. Sharkey

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^{26/} AT&T Reply Comments at 5.